

Supplemental Material

Evaluating Multipollutant Exposure and Urban Air Quality: Pollutant Interrelationships, Neighborhood Variability, and Nitrogen Dioxide as a Proxy Pollutant

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Supplemental Material, Table S1. List of pollutants measured by CRUISER and the methods employed.

Parameter	Avl ^a (%)	Instrument model	Response time	Detection limit	Units
NO	80	Thermo Scientific / TECO 42CTL	1 sec	0.4 ppbv	ppbv
NO ₂	64	Thermo Scientific / TECO 42CTL with Photolytic converter	1 sec	0.8 ppbv	ppbv
NO _y	62	Thermo Scientific / TECO 42CTL with Photolytic converter & Mo converter	1 sec	0.4 ppbv	ppbv
NO _x	64	Calculated (NO + NO ₂)	NA	NA	ppbv
NO _z	46	Calculated (NO _y - NO _x)	NA	NA	ppbv
SO ₂	79	Thermo Scientific / TECO 43 TLE with a 5-μm pore size Teflon filter	10 sec	1 ppbv	ppbv
CO	78	Thermo Scientific / TECO 48 with a 5-μm pore size Teflon filter	10 sec	100 ppbv	ppbv
O ₃	79	Thermo Scientific / TECO 49	20 sec	1 ppbv	ppbv
O _x	53	Calculated (NO ₂ + O ₃)	NA	NA	ppbv
PM ₁₀	88	GRIMM Dust Monitor 1.100	6 sec	0.1 μg/m ³	μg/m ³
PM _{2.5}	88	GRIMM Dust Monitor 1.100	6 sec	0.1 μg/m ³	μg/m ³
PM _{1.0}	88	GRIMM Dust Monitor 1.100	6 sec	0.1 μg/m ³	μg/m ³
UFP (Ultrafine particles)	87	GRIMM CPC 5.403	1 sec	0.6 #/cc	#/cc
BC (Black carbon)	49	Droplet Measurement Technologies / Photo Acoustic	1 sec	< 3.3 μg/m ³	μg/m ³
OM (Organic matter)	73	Aerodyne Aerosol Mass Spectrometer	2 min	0.15 μg/m ³	μg/m ³
Sulfate	73	Aerodyne Aerosol Mass Spectrometer	2 min	0.04 μg/m ³	μg/m ³
Nitrate	73	Aerodyne Aerosol Mass Spectrometer	2 min	0.02 μg/m ³	μg/m ³
HOA (Hydrocarbon-like organic aerosols)	36	Aerodyne Aerosol Mass Spectrometer (PMF application)	2 min	0.15 μg/m ³	μg/m ³
MZ57 (mass to charge ratio of 57)	36	Aerodyne Aerosol Mass Spectrometer	2 min	0.01 μg/m ³	μg/m ³
Benzene	73	IONICON High Sensitivity PTR-MS	10 sec	20 pptv	pptv

Parameter	Avl^a. (%)	Instrument model	Response time	Detection limit	Units
C3 Benzene	73	IONICON High Sensitivity PTR-MS	10 sec	20 pptv	pptv
Toluene	73	IONICON High Sensitivity PTR-MS	10 sec	20 pptv	pptv
Xylenes	73	IONICON High Sensitivity PTR-MS	10 sec	20 pptv	pptv

^a Availability: percent of valid measurements from entire campaign.

Supplemental Material, Table S2. Multipollutant correlations during the entire study campaign.^a

	r _{avg}	NO	NO _x	NO _y	NO _z	SO ₂	CO	O ₃	PM ₁₀	PM _{2,5}	PM _{1,0}	UFP	BC	OM	Sulfate	Nitrate	Benzene	C3 Benzene	Acetone	Toluene	Xylenes	O _x	HOA	MZ57
NO ₂	0.40	0.78 (844)	0.88 (844)	0.74 (715)	0.44 (716)	0.11 (791)	0.48 (775)	-0.45 (821)	0.39 (821)	0.29 (821)	0.22 (730)	0.65 (407)	0.71 (753)	0.48 (749)	0.12 (753)	-0.08 (736)	0.17 (730)	0.29 (740)	0.05 (737)	0.10 (725)	0.22 (775)	0.85 (593)	0.43 (592)	0.40 (592)
NO	0.53		0.98 (849)	0.99 (998)	0.71 (715)	-0.04 (1041)	0.79 (1018)	-0.74 (1053)	0.56 (1053)	0.50 (1053)	0.53 (967)	0.88 (583)	0.67 (984)	0.75 (982)	0.35 (984)	0.11 (975)	0.23 (972)	0.42 (980)	0.03 (976)	0.09 (969)	0.12 (766)	0.47 (826)	0.80 (826)	0.65 (826)
NO _x	0.48			0.97 (716)	0.69 (717)	0.04 (796)	0.64 (786)	-0.62 (776)	0.48 (824)	0.39 (824)	0.33 (733)	0.83 (407)	0.73 (757)	0.61 (753)	0.17 (757)	-0.09 (740)	0.22 (734)	0.35 (747)	0.10 (742)	0.11 (730)	0.23 (775)	0.61 (595)	0.60 (594)	0.50 (594)
NO _y	0.53				0.84 (716)	-0.03 (942)	0.81 (930)	-0.75 (893)	0.59 (968)	0.54 (968)	0.59 (968)	0.89 (902)	0.67 (471)	0.76 (853)	0.39 (852)	0.13 (853)	0.27 (898)	0.47 (893)	0.02 (904)	0.16 (903)	0.13 (895)	-0.01 (580)	0.82 (720)	0.66 (718)
NO _z	0.43					-0.07 (645)	0.65 (640)	-0.62 (585)	0.48 (692)	0.48 (692)	0.50 (621)	0.57 (288)	0.61 (578)	0.62 (576)	0.25 (578)	-0.03 (605)	0.18 (592)	0.30 (612)	0.10 (610)	0.10 (603)	0.06 (581)	-0.17 (457)	0.61 (457)	0.43 (457)
SO	0.15					-0.08 (1050)	0.17 (1074)	-0.04 (1084)	-0.10 (1084)	-0.15 (1084)	0.08 (983)	0.10 (595)	-0.04 (1005)	0.30 (1002)	0.12 (1005)	0.36 (1004)	0.11 (1002)	-0.01 (1011)	0.21 (1008)	0.31 (999)	0.19 (742)	-0.01 (848)	0.02 (846)	
CO	0.48						-0.73 (1020)	0.51 (1048)	0.48 (1048)	0.61 (1048)	0.66 (970)	0.50 (587)	0.80 (975)	0.42 (972)	0.32 (975)	0.22 (970)	0.41 (967)	-0.01 (976)	0.09 (957)	0.01 (698)	0.16 (821)	0.84 (820)	0.65 (820)	
O ₃	0.50							-0.53 (1050)	-0.64 (1050)	-0.70 (1050)	-0.50 (949)	-0.38 (559)	-0.80 (994)	-0.64 (992)	-0.75 (994)	-0.17 (961)	-0.35 (963)	-0.02 (965)	0.02 (965)	0.09 (953)	0.09 (775)	-0.79 (818)	-0.61 (817)	
PM ₁₀	0.39								0.79 (1128)	0.56 (1127)	0.51 (995)	0.34 (647)	0.51 (1031)	0.51 (1031)	0.22 (1031)	0.12 (1031)	0.24 (1029)	0.39 (1024)	0.02 (1032)	0.11 (1033)	0.14 (1019)	0.20 (739)	0.61 (880)	0.54 (878)
PM _{2,5}	0.41									0.85 (1127)	0.40 (995)	0.34 (647)	0.63 (1031)	0.42 (1031)	0.26 (1031)	0.19 (1029)	0.37 (1024)	0.03 (1032)	0.06 (1033)	0.05 (1019)	-0.08 (739)	0.71 (878)	0.58 (878)	
PM _{1,0}	0.43										0.38 (995)	0.33 (647)	0.70 (1031)	0.55 (1031)	0.35 (1031)	0.19 (1026)	0.36 (1023)	0.01 (1030)	0.02 (1030)	-0.06 (1016)	-0.18 (739)	0.78 (880)	0.57 (878)	
UFP	0.46											0.69 (645)	0.61 (920)	0.33 (918)	0.13 (920)	0.21 (964)	0.36 (962)	-0.01 (1025)	0.06 (967)	0.06 (954)	0.44 (637)	0.68 (858)	0.56 (857)	
BC	0.42												0.38 (489)	0.19 (484)	0.10 (489)	0.13 (579)	0.27 (572)	0.00 (584)	0.00 (582)	0.11 (568)	0.15 (309)	0.39 (427)	0.51 (424)	
OM	0.51													0.57 (1045)	0.35 (1045)	0.24 (936)	0.37 (927)	-0.04 (943)	0.08 (940)	-0.00 (922)	0.10 (690)	0.97 (886)	0.80 (884)	
Sulfate	0.38														0.40 (1045)	0.42 (1045)	0.36 (925)	-0.02 (942)	0.13 (939)	0.12 (921)	-0.10 (686)	0.62 (885)	0.48 (883)	
Nitrate	0.27															0.10 (936)	0.09 (927)	-0.03 (943)	-0.04 (940)	-0.09 (922)	-0.22 (690)	0.55 (886)	0.42 (884)	
Benzene	0.28																0.50 (1043)	0.04 (1053)	0.56 (1054)	0.17 (1036)	0.31 (632)	0.25 (828)		
C3 Benzene	0.35																	0.13 (1049)	0.41 (1048)	0.56 (1048)	0.17 (632)	0.39 (816)	0.33 (815)	
Acetone	0.09																		0.11 (1058)	0.21 (1044)	0.08 (636)	-0.10 (837)	-0.07 (835)	
Toluene	0.17																			0.47 (1044)	0.13 (634)	0.05 (831)		
Xylenes	0.21																				0.14 (633)	-0.07 (818)	-0.02 (818)	
O _x	0.25																				-0.20 (535)	-0.01 (533)		
HOA	0.55																					0.81 (920)		

^aPearson's correlation coefficients. In parentheses: number of road segments meeting the criterions of more than 100 visits per km, more 100 visits in total and spread over 3 days or more. Bold font marks p-values ≤ 0.001, italic font marks p-values between 0.001 and 0.01.

Supplemental Material Table S3. Multipollutant correlations during the summer measurements.^a

Summer	r _{avg}	NO	NO _x	NO _y	NO _z	SO ₂	CO	O ₃	PM ₁₀	PM _{2,5}	PM _{1,0}	UFP	BC	OM	Sulfate	Nitrate	Benzene	C3	Benzene	Acetone	Toluene	Xylenes	O _x	HOA	MZ57		
NO ₂	0.52	0.89 (503)	0.94 (518)	0.88 (277)	0.70 (277)	0.17 (477)	0.77 (452)	-0.74 (514)	0.35 (505)	0.34 (505)	0.70 (428)	0.77 (171)	0.80 (513)	0.72 (508)	0.01 (513)	0.60 (513)	0.17 (382)	0.30 (385)	0.10 (391)	0.05 (387)	0.22 (381)	0.93 (514)	0.54 (457)	0.42 (454)			
NO	0.55		0.99 (504)	0.99 (373)	0.67 (269)	0.08 (519)	0.86 (509)	-0.84 (556)	0.38 (544)	0.36 (544)	0.76 (466)	0.81 (194)	0.80 (550)	0.76 (549)	-0.09 (550)	0.77 (550)	<i>0.15</i> (423)	0.33 (425)	0.26 (426)	0.06 (423)	0.25 (417)	0.75 (501)	0.53 (491)	0.44 (486)			
NO _x	0.53			0.97 (279)	0.72 (279)	0.10 (477)	0.86 (452)	-0.82 (514)	0.37 (505)	0.34 (505)	0.72 (429)	0.80 (172)	0.80 (513)	0.76 (508)	-0.06 (508)	0.71 (513)	<i>0.15</i> (383)	0.30 (386)	<i>0.13</i> (391)	0.04 (387)	0.19 (381)	0.82 (514)	0.55 (459)	0.44 (456)			
NO _y	0.55				0.87 (279)	0.07 (340)	0.87 (335)	-0.85 (380)	0.34 (369)	0.35 (369)	0.75 (369)	0.80 (276)	0.80 (89)	0.80 (378)	-0.03 (367)	0.80 (378)	0.21 (247)	0.37 (247)	0.10 (256)	0.16 (245)	0.30 (244)	0.39 (276)	0.51 (320)	0.43 (316)			
NO _z	0.44					0.14 (244)	0.60 (237)	-0.51 (278)	0.32 (273)	0.23 (273)	0.49 (203)	0.51 (58)	0.68 (270)	0.53 (266)	0.05 (270)	0.33 (181)	0.38 (183)	0.34 (186)	0.11 (185)	0.36 (183)	0.27 (185)	0.36 (183)	0.40 (236)	0.29 (233)			
SO ₂	0.16						0.07 (519)	-0.09 (572)	0.08 (549)	0.03 (549)	0.05 (549)	0.15 (471)	0.18 (205)	0.14 (562)	0.48 (558)	0.07 (562)	0.33 (440)	0.18 (443)	0.09 (446)	0.09 (440)	0.09 (437)	0.12 (477)	0.17 (494)	0.13 (491)	0.06 (491)		
CO	0.44							-0.74 (550)	0.21 (535)	0.15 (535)	0.24 (469)	0.73 (200)	0.46 (546)	0.62 (543)	-0.02 (546)	0.58 (427)	0.09 (427)	0.35 (427)	0.18 (438)	0.06 (433)	0.17 (424)	0.63 (452)	0.55 (491)	0.45 (489)			
O ₃	0.44								-0.39 (572)	-0.20 (572)	-0.28 (572)	-0.44 (511)	-0.51 (229)	-0.58 (590)	0.17 (587)	-0.71 (590)	-0.15 (456)	-0.24 (458)	-0.07 (468)	-0.07 (460)	-0.07 (456)	-0.25 (514)	-0.45 (531)	-0.43 (529)	-0.33 (529)		
PM ₁₀	0.28									0.74 (574)	0.59 (574)	0.26 (501)	0.17 (226)	0.21 (571)	-0.03 (569)	0.31 (571)	0.16 (453)	0.18 (459)	0.08 (467)	0.09 (459)	0.09 (455)	0.20 (501)	0.27 (523)	0.11 (521)	0.10 (521)		
PM _{2,5}	0.25										0.87 (574)	0.15 (501)	0.10 (226)	0.19 (571)	0.01 (569)	0.19 (571)	0.08 (453)	0.09 (459)	0.09 (467)	0.08 (459)	0.04 (467)	0.10 (501)	0.28 (523)	0.10 (521)	0.12 (521)		
PM _{1,0}	0.40											0.13 (501)	0.55 (226)	0.28 (571)	0.03 (569)	0.32 (571)	0.22 (453)	0.31 (459)	0.15 (467)	0.08 (459)	0.28 (501)	0.60 (523)	0.32 (521)	0.27 (521)			
UFP	0.40												0.54 (183)	0.40 (509)	0.08 (504)	0.17 (509)	0.20 (386)	0.38 (388)	-0.02 (388)	0.07 (434)	0.07 (396)	0.07 (388)	0.07 (426)	0.22 (486)	0.73 (481)	0.38 (481)	0.33 (481)
BC	0.43													0.48 (230)	0.11 (226)	0.14 (230)	0.01 (165)	0.16 (167)	-0.04 (176)	0.03 (170)	0.15 (169)	0.15 (171)	0.15 (206)	0.75 (204)	0.37 (204)	0.36 (204)	
OM	0.47														0.02 (589)	0.69 (593)	0.21 (459)	0.26 (461)	0.02 (471)	0.20 (463)	0.13 (458)	0.64 (509)	0.87 (533)	0.72 (531)			
Sulfate	0.17														0.01 (589)	0.28 (457)	0.21 (460)	0.06 (468)	0.14 (460)	0.19 (455)	0.08 (504)	0.10 (531)	0.08 (529)				
Nitrate	0.38														0.07 (459)	0.18 (461)	0.04 (471)	0.07 (463)	0.11 (458)	0.44 (509)	0.17 (533)	0.12 (531)					
Benzene	0.25															0.57 (455)	0.07 (461)	0.50 (458)	0.64 (450)	0.13 (381)	0.23 (446)	0.07 (446)					
C3																	0.12 (462)	0.38 (456)	0.69 (452)	0.22 (383)	0.31 (449)	0.19 (447)					
Benzene	0.30																	0.22 (464)	0.14 (459)	0.05 (389)	0.05 (455)	0.00 (452)					
Acetone	0.13																	0.07 (464)	0.22 (459)	0.14 (389)	0.05 (449)	0.00 (448)					
Toluene	0.17																		0.43 (452)	0.03 (386)	0.14 (449)	0.02 (448)	0.02 (448)				
Xylenes	0.27																			0.00 (387)	0.10 (451)	0.03 (449)	0.00 (449)	0.00 (449)			
O _x	0.44																				0.44 (454)	0.32 (451)		0.72 (539)			
HOA	0.38																							0.72 (539)			

^aPearson's correlation coefficients. In brackets: number of road segments meeting the criterions of more than 100 visits per km, more 100 visits in total and spread over 3 days or more. Bold font marks p-values ≤ 0.001, italic font marks p-values between 0.001 and 0.01.

Supplemental Material Table S4. Multipollutant correlations during the winter measurements.^a

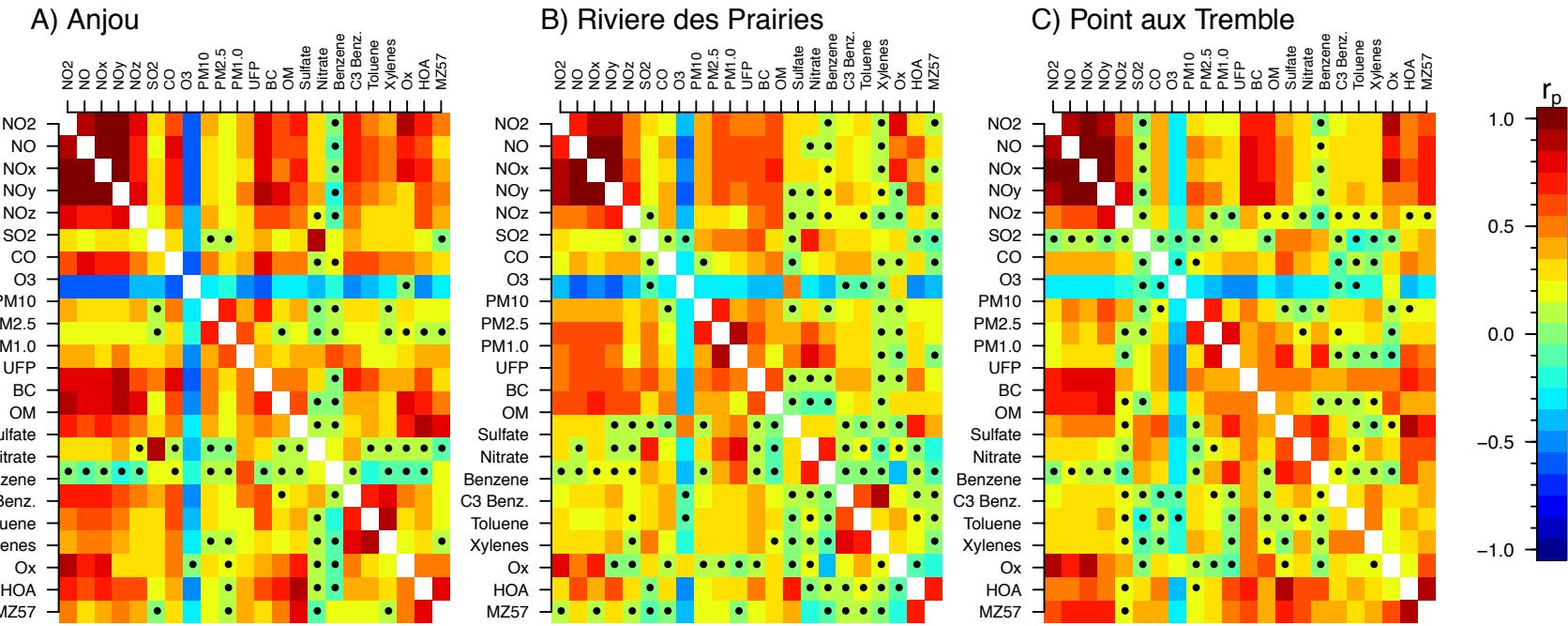
Winter	r _{av} g	NO	NO _x	NO _y	NO _z	SO ₂	CO	O ₃	PM ₁₀	PM _{2,5}	PM _{1,0}	UFP	BC	OM	Sulfate	Nitrate	Benzene	C3 Benzene	Acetone	Toluene	Xylene	O _x	HOA	MZ57
NO ₂	0.3 7	0.76 (423)	0.88 (424)	0.83 (362)	0.48 (362)	0.04	<i>0.16</i> (295)	-0.36 (176)	0.35 (379)	0.34 (379)	0.13 (379)	0.71 (424)	0.55 (171)	0.28 (185)	0.09 (185)	0.01 (185)	0.04 (339)	0.25 (322)	0.06 (341)	0.15 (341)	0.10 (335)	0.70 (176)	0.52 (124)	0.34 (124)
NO	0.4 5		0.98 (425)	0.98 (408)	0.65 (362)	0.06	0.34 (327)	-0.34 (214)	0.48 (418)	0.39 (418)	0.10 (418)	0.85 (461)	0.71 (197)	0.25 (219)	<i>0.18</i> (219)	-0.13 (219)	0.21 (375)	0.46 (364)	0.17 (378)	0.36 (379)	0.29 (373)	0.57 (175)	0.52 (156)	0.32 (156)
NO _x	0.4 4			0.99 (363)	0.64 (363)	0.05	0.27 (295)	-0.33 (177)	0.46 (383)	0.39 (383)	0.10 (383)	0.83 (426)	0.70 (172)	0.28 (186)	0.15 (186)	-0.08 (186)	0.13 (340)	0.37 (323)	0.15 (342)	0.29 (342)	0.24 (337)	0.63 (176)	0.60 (125)	0.36 (125)
NO _y	0.4 4				0.72 (363)	0.04 (282)	0.37 (300)	-0.30 (160)	0.46 (358)	0.36 (358)	0.19 (358)	0.82 (411)	0.65 (167)	0.25 (166)	0.14 (166)	0.02 (166)	0.20 (324)	0.44 (309)	0.20 (332)	0.41 (332)	0.33 (325)	0.44 (132)	0.45 (130)	0.30 (130)
NO _z	0.3 8					-0.01 (238)	0.35 (266)	-0.24 (136)	0.36 (327)	0.37 (327)	0.22 (362)	0.48 (136)	0.36 (147)	0.29 (147)	0.23 (147)	0.25 (146)	0.18 (285)	0.31 (273)	0.25 (288)	0.32 (287)	0.28 (283)	0.33 (135)	0.40 (110)	0.32 (110)
SO ₂	0.1 3					-0.07 (257)	-0.16 (175)	-0.06 (267)	-0.05 (267)	-0.02 (267)	0.23 (330)	-0.01 (124)	-0.08 (92)	0.65 (92)	0.03 (92)	0.26 (238)	-0.06 (225)	-0.15 (239)	0.09 (240)	0.09 (228)	0.00 (133)	-0.00 (77)	-0.04 (77)	
CO	0.2 7					-0.15 (153)	0.20 (318)	0.30 (318)	0.28 (347)	0.08 (137)	0.40 (145)	0.49 (145)	-0.07 (145)	0.26 (145)	0.13 (276)	0.42 (252)	0.22 (277)	0.39 (279)	0.29 (274)	0.23 (113)	0.22 (124)	0.11 (124)		
O ₃	0.2 7						-0.16 (173)	-0.14 (174)	-0.02 (173)	-0.38 (239)	-0.22 (80)	-0.09 (50)	-0.11 (50)	0.08 (50)	-0.20 (123)	-0.31 (121)	-0.21 (122)	-0.22 (123)	-0.30 (121)	0.41 (176)	-0.30 (21)	0.60 (21)		
PM ₁₀	0.2 8								0.69 (429)	0.31 (429)	0.44 (428)	0.33 (182)	0.16 (230)	0.04 (230)	-0.04 (230)	0.08 (380)	0.26 (368)	0.11 (383)	0.16 (384)	0.18 (380)	0.23 (132)	0.27 (164)	0.13 (164)	
PM _{2,5}	0.2 9									0.63 (429)	0.32 (428)	0.42 (428)	0.35 (230)	-0.05 (230)	0.22 (230)	0.05 (380)	0.26 (368)	0.14 (383)	0.15 (384)	0.16 (380)	0.08 (133)	0.17 (164)	0.06 (164)	
PM _{1,0}	0.1 8										0.08 (428)	0.08 (182)	0.17 (230)	-0.04 (230)	0.18 (380)	0.01 (380)	0.08 (368)	0.17 (383)	0.09 (384)	0.07 (380)	0.16 (133)	0.04 (164)	0.05 (164)	
UFP	0.3 9											0.64 (214)	0.14 (233)	0.26 (233)	-0.25 (233)	0.19 (388)	0.36 (375)	-0.01 (392)	0.22 (393)	0.18 (393)	0.49 (386)	0.45 (176)	0.21 (165)	
BC	0.4 0												0.41 (64)	-0.07 (64)	0.03 (64)	0.23 (156)	0.41 (143)	0.20 (158)	0.32 (157)	0.29 (150)	0.47 (60)	0.53 (36)	0.51 (36)	
OM	0.3 2													0.21 (233)	0.43 (233)	0.06 (210)	0.36 (192)	0.09 (214)	0.30 (210)	0.21 (200)	0.36 (165)	0.69 (165)	0.52 (165)	
Sulfate	0.2 4														0.24 (233)	0.47 (210)	0.07 (192)	0.02 (214)	0.35 (210)	0.34 (200)	-0.12 (38)	0.07 (165)	0.09 (165)	
Nitrate	0.1 8															0.04 (210)	-0.02 (192)	0.01 (214)	0.04 (210)	0.06 (200)	-0.00 (38)	-0.08 (165)	0.11 (165)	
Benzene	0.2 5																0.52 (372)	0.13 (388)	0.66 (388)	0.68 (384)	-0.13 (95)	0.10 (148)	0.06 (148)	
C3 Benzene	0.3 5																	0.33 (375)	0.76 (375)	0.77 (370)	0.14 (94)	0.39 (131)	0.30 (131)	
Acetone	0.1 9																		0.41 (391)	0.37 (384)	0.13 (95)	0.10 (151)	0.04 (151)	
Toluene	0.3 4																			0.78 (386)	-0.03 (95)	0.37 (149)	0.31 (149)	
Xylenes	0.3 1																				-0.01 (95)	0.26 (143)	0.18 (143)	
O _x	0.3 1																					0.31 (17)	0.43 (17)	
HOA	0.3 6																						0.68 (184)	

^aPearson's correlation coefficients. In brackets: number of road segments meeting the criterions of more than 100 visits per km, more 100 visits in total and spread over 3 days or more. Bold font marks p-values ≤ 0.001, italic font marks p-values between 0.001 and 0.01.

Supplemental Material Table S5. Multipollutant correlations during the autumn measurements.^a

Autumn	r _{avg}	NO	NO _x	NO _y	NO _z	SO ₂	CO	O ₃	PM ₁₀	PM _{2,5}	PM _{1,0}	UFP	BC	OM	Sulfate	Nitrate	Benzene	C3 Benzene	Acetone	Toluene	Xylenes	O _x	HOA	MZ57	
NO ₂	0.40	0.68 (84)	0.88 (84)	0.74 (79)	0.47 (79)	0.25 (81)	0.40 (71)	-0.33 (81)	0.30 (71)	0.26 (71)	0.17 (71)	0.63 (81)	0.52 (27)	0.65 (56)	-0.26 (56)	0.07 (84)	0.12 (84)	0.14 (84)	0.30 (84)	0.15 (84)	0.01 (83)	0.97 (81)	0.69 (44)	0.39 (44)	
NO	0.53		0.96 (85)	0.99 (301)	0.70 (80)	0.67 (305)	0.73 (283)	-0.70 (300)	0.51 (295)	0.44 (295)	0.46 (295)	0.89 (295)	0.77 (152)	0.66 (248)	0.01 (248)	0.37 (248)	0.22 (309)	0.12 (309)	-0.24 (307)	0.28 (310)	0.13 (303)	0.59 (81)	0.68 (225)	0.47 (225)	
NO _x	0.47			0.97 (80)	0.69 (80)	0.34 (82)	0.46 (72)	-0.51 (82)	0.51 (71)	0.55 (71)	0.41 (71)	0.83 (82)	0.45 (28)	0.55 (57)	-0.31 (57)	0.09 (84)	0.12 (84)	0.17 (85)	0.37 (85)	0.23 (84)	0.07 (83)	0.80 (81)	0.54 (45)	0.29 (45)	
NO _y	0.55				0.85 (80)	0.69 (302)	0.76 (275)	-0.73 (296)	0.50 (291)	0.47 (291)	0.50 (292)	0.89 (292)	0.81 (149)	0.69 (245)	0.00 (245)	0.37 (245)	0.26 (305)	0.14 (305)	-0.20 (300)	0.30 (307)	0.19 (294)	0.37 (77)	0.69 (223)	0.50 (223)	
NO _z	0.43					0.50 (79)	0.62 (66)	-0.59 (77)	0.41 (70)	0.46 (70)	0.37 (78)	0.71 (26)	0.67 (51)	0.61 (51)	0.11 (51)	0.29 (80)	0.15 (80)	0.18 (80)	0.25 (79)	0.18 (78)	0.11 (77)	0.07 (43)	0.31 (43)	0.13 (43)	
SO ₂	0.42						0.59 (313)	-0.63 (342)	0.34 (332)	0.29 (332)	0.43 (332)	0.65 (335)	0.63 (175)	0.38 (278)	0.48 (278)	0.30 (278)	0.38 (348)	0.29 (346)	-0.15 (349)	0.42 (348)	0.27 (342)	0.11 (77)	0.38 (259)	0.28 (259)	
CO	0.48								-0.67 (307)	0.35 (297)	0.35 (297)	0.49 (297)	0.61 (307)	0.63 (157)	0.71 (258)	0.14 (258)	0.39 (312)	0.41 (312)	0.31 (316)	-0.07 (315)	0.49 (308)	0.27 (68)	0.29 (236)	0.71 (236)	0.50 (236)
O ₃	0.45									-0.42 (324)	-0.44 (324)	-0.57 (324)	-0.66 (327)	-0.61 (170)	-0.59 (267)	-0.08 (267)	-0.46 (342)	-0.33 (340)	-0.12 (344)	0.07 (343)	-0.36 (337)	-0.13 (81)	-0.09 (246)	-0.50 (246)	-0.28 (246)
PM ₁₀	0.37										0.82 (338)	0.49 (338)	0.47 (322)	0.39 (165)	0.43 (274)	-0.00 (274)	0.30 (274)	0.23 (332)	0.17 (329)	-0.24 (336)	0.26 (334)	0.12 (328)	0.22 (69)	0.45 (255)	0.28 (255)
PM _{2,5}	0.38											0.79 (338)	0.37 (322)	0.46 (165)	0.47 (274)	0.16 (274)	0.30 (274)	0.26 (332)	0.12 (329)	-0.22 (336)	0.20 (334)	0.10 (328)	0.04 (69)	0.43 (255)	0.30 (255)
PM _{1,0}	0.41												0.44 (322)	0.54 (165)	0.54 (274)	0.44 (274)	0.38 (274)	0.35 (332)	0.08 (329)	-0.34 (336)	0.21 (334)	0.11 (328)	-0.07 (69)	0.44 (255)	0.35 (255)
UFP	0.51													0.74 (173)	0.56 (276)	0.03 (276)	0.30 (276)	0.26 (349)	0.19 (347)	-0.21 (350)	0.36 (349)	0.21 (345)	0.28 (78)	0.58 (256)	0.44 (256)
BC	0.48														0.66 (132)	-0.01 (132)	0.26 (132)	0.34 (174)	0.14 (174)	-0.03 (171)	0.27 (176)	0.15 (175)	0.70 (172)	0.32 (106)	0.42 (106)
OM	0.50															-0.07 (281)	0.47 (281)	0.22 (277)	0.02 (275)	-0.26 (281)	0.19 (280)	0.08 (268)	0.55 (51)	0.96 (261)	0.68 (261)
Sulfate	0.21																0.16 (281)	0.14 (281)	-0.01 (277)	-0.24 (281)	-0.07 (280)	0.07 (268)	-0.25 (51)	-0.13 (261)	0.04 (261)
Nitrate	0.30																	0.01 (277)	-0.08 (275)	-0.12 (281)	0.08 (280)	-0.02 (268)	0.02 (51)	0.45 (261)	0.29 (261)
Benzene	0.32																	0.68 (351)	0.05 (355)	0.73 (354)	0.77 (350)	0.03 (81)	0.19 (258)	0.25 (258)	
C3 Benzene	0.24																		0.21 (354)	0.78 (352)	0.76 (344)	0.11 (81)	0.00 (256)	0.10 (256)	
Acetone	0.22																			0.14 (355)	0.08 (352)	0.21 (81)	-0.22 (261)	-0.23 (261)	
Toluene	0.33																			0.75 (351)	0.04 (81)	0.18 (260)	0.24 (260)		
Xylenes	0.24																				-0.04 (81)	0.08 (249)	0.18 (249)		
O _x	0.31																					0.66 (38)	0.36 (38)		
HOA	0.49																						0.68 (280)		

^aPearson's correlation coefficients. In brackets: number of road segments meeting the criterions of more than 100 visits per km, more 100 visits in total and spread over 3 days or more. Bold font marks p-values ≤ 0.001, italic font marks p-values between 0.001 and 0.01.



Supplemental Material, Figure S1. Pearson correlation coefficients (r_p) between pairs of pollutants according to neighborhood

[(A) Anjou, (B) Riviere des Prairies (RdP), and (C) Point aux Tremble (PaT)]. All data are based on all measurement days combined. Non-significant correlations ($p > 0.05$) are indicated by a black dot, and the magnitude of each correlation is indicated on the color bar to the right.